


## Villa Flora

by [EDGE Buildings](#) / 2019-06-07 15:52:32 / International / 5987 / EN



**Renovation**

**Primary energy need :**  
kWhpe/m<sup>2</sup>.year  
(Calculation method : )

**ENERGY CONSUMPTION**

Consumption Range (kWhpe/m <sup>2</sup> .year)	Grade
< 50	A
51 à 90	B
91 à 150	C
151 à 230	D
231 à 330	E
331 à 450	F
> 450	G

*Economical building* (A-C) | *Energy-intensive building* (D-G)

**Building Type :** Collective housing > 50m  
**Construction Year :** 2015  
**Delivery year :** 2019  
**Address 1 - street :** 26, Impasse Julie, Petion-Ville HT 6140 PETION-VILLE, Other countries  
**Climate zone :** [Aw] Tropical Wet & Dry with dry winter.

**Net Floor Area :** 2 163 m<sup>2</sup>

**Certifications :**



**Proposed by :**



### General information

Developed by Chabuma S.A./Central Home Consortium, a local Haitian developer, Villa Flora is a residential estate located in the heart of Port-au-Prince. The development targets the needs of the city's emerging middle class by offering 39 affordable apartments and single family housing units.

The Consortium received technical assistance from USAID's Haiti HOME program to incorporate key elements of affordability and resource efficiency in Villa Flora's design. Haiti HOME is led by the World Council of Credit Unions in partnership with Habitat for Humanity and the Affordable Housing Institute.

Villa Flora's homes are equipped with solar panels in order to provide each household with 100 per cent of its energy needs. Each unit's design adheres to high seismic standards to provide resilience in the event of earthquakes and other natural disasters. Because of Villa Flora's green design, each household is expected to realize estimated utility cost savings of US\$360 per year.

Villa Flora has received final EDGE certification from GBCI.

## See more details about this project

<https://www.edgebuildings.com/projects/villa-flora/>

## Photo credit

Photos courtesy of Olivia Caldwell, affordable Housing Institute

## Stakeholders

### Contractor

Name : Chabuma S.A.

Contact : 509 2941-8000

[www.batimathaiti.com](http://www.batimathaiti.com)

### Construction Manager

Name : Haiti Home Ownership and Mortgage Expansion (HOME)

[http://www.woccu.org/programs/current\\_programs/haiti/haiti\\_home](http://www.woccu.org/programs/current_programs/haiti/haiti_home)

### Stakeholders

Function : Developer

Chabuma S.A./Central Home Consortium

Local Haitian developer

## Energy

### Energy consumption

Breakdown for energy consumption : Hot water: 7 kWhfe/m<sup>2</sup>.year

Lighting: 2.5 kWhfe/m<sup>2</sup>.year

Home appliances: 8 kWhfe/m<sup>2</sup>.year

[Not included in final energy use]

Fan energy: 2 kWhfe/m<sup>2</sup>.year

Cooling energy: 62 kWhfe/m<sup>2</sup>.year

Initial consumption : 68,00 kWhpe/m<sup>2</sup>.year

### Envelope performance

More information :

Roof U-value= 2.12

Wall U-value= 1.86

Glass U-value= 5.75

### Real final energy consumption

Final Energy : 17,20 kWhfe/m<sup>2</sup>.year

## Renewables & systems

### Systems

Heating system :

- No heating system

Hot water system :

- Individual electric boiler

#### Cooling system :

- No cooling system

#### Ventilation system :

- Natural ventilation

#### Renewable systems :

- Solar photovoltaic

Renewable energy production : 68,00 %

## Products

### Product

- Reduced Window to Wall Ratio - WWR of 21.14%
- Reflective Paint/Tiles for Roof - Solar Reflectivity (albedo) of 0.85
- Energy-Saving Light Bulbs - Internal Spaces
- Solar Photovoltaics - 68% of Total Energy Demand (Capacity kWp/Unit=1.9)

Product category : Second œuvre / Plomberie, sanitaire

- Low-Flow Showerheads - 7.6 L/min
- Low-Flow Faucets for Kitchen Sinks - 7.6 L/min
- Low-Flow Faucets in All Bathrooms - 5.68 L/min
- Dual Flush for Water Closets in All Bathrooms - 6 L/first flush and 5.45 L/second flush

Product category : Second œuvre / Cloisons, isolation

- External walls: Medium Weight Hollow Concrete Blocks-Common Brick Wall with Internal & External Plaster
- Internal Walls: Medium Weight Hollow Concrete Blocks -Common Brick Wall with Plaster on Both Sides
- Aluminum window frames

## Costs

### Energy bill

Forecasted energy bill/year : 6 956,00 €

Real energy cost/m<sup>2</sup> : 3.22

Real energy cost/Dwelling : 178.36

## Health and comfort

### Water management

Consumption from water network : 7853.04 m<sup>3</sup>

Final Water Use: 16.78 kL/Month/Unit

Water Savings: 585.82 m<sup>3</sup>/Year

### Comfort

Health & comfort :

Villa Flora is a welcoming space offering a paradise setting for short and long stays. Located in Torcel, a newly built neighborhood, it is about 20 minutes to the airport, 20 minutes to Pétiön-Ville where are the main shopping centers of the country. The area is very calm and safe.

It is a unique space that will charm you. The warm welcome to guests, the hospitality and the cleanliness of the environment make Villa Flora an irresistible and incomparable place.

## Carbon

## GHG emissions

GHG in use : 9,88 KgCO<sub>2</sub>/m<sup>2</sup>/year

CARBON EMISSIONS: 0.89 tCO<sub>2</sub>/Year/Unit, average unit area: 90m<sup>2</sup>

## CONTEST

### Reasons for participating in the competition(s)

47% - Energy Savings Reduced window to wall ratio, reflective paint and tiles for roof, energy-saving lighting system for internal spaces and solar photovoltaics

23% - Water Savings

Low-flow showerheads and faucets in kitchens and bathrooms and dual-flush water closets.

54% - Less Embodied Energy in Materials Medium weight hollow concrete blocks for internal and external walls and UPVC window frames.

### Building candidate in the category



Energy & Hot Climates



Health & Comfort



Users' Choice

